

# Work Order ID 126670

November-20-14 1:43:09 PM

**\*126670\***

Page 1

Item ID: D3562-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Step Weldment  
 Start Date: 11/20/14 Start Qty: 4.00 **\*4\*** Cust Item ID:  
 Required Date: 12/05/14 Req'd Qty: 4.00 **\*4\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

| Draw Nbr | Revision Nbr |
|----------|--------------|
| D3562    | F            |

|              |                                                                               |      |  |  |  |  |  |  |  |
|--------------|-------------------------------------------------------------------------------|------|--|--|--|--|--|--|--|
| 100          | Large Fab                                                                     | 0.00 |  |  |  |  |  |  |  |
| <b>*100*</b> |                                                                               |      |  |  |  |  |  |  |  |
| Large Fab    | Memo                                                                          | 0.00 |  |  |  |  |  |  |  |
| Large Fab    | 1-Cut D2622 extrusion as per Dwg D3562<br>2-Deburr and bevel ends for welding |      |  |  |  |  |  |  |  |

*Handwritten:* 15-5-25

|                 |                                    |      |  |  |  |  |  |  |  |
|-----------------|------------------------------------|------|--|--|--|--|--|--|--|
| 110             | QC6- Inspect dimensions to drawing | 0.00 |  |  |  |  |  |  |  |
| <b>*110*</b>    |                                    |      |  |  |  |  |  |  |  |
| QC              | Memo                               | 0.00 |  |  |  |  |  |  |  |
| Quality Control |                                    |      |  |  |  |  |  |  |  |

*Handwritten:* 4/X

|                |                                         |      |  |  |  |  |  |  |  |
|----------------|-----------------------------------------|------|--|--|--|--|--|--|--|
| 120            | Chemical Conversion Coat per QSI005 4.1 | 0.00 |  |  |  |  |  |  |  |
| <b>*120*</b>   |                                         |      |  |  |  |  |  |  |  |
| HandFinish     | Memo                                    | 0.00 |  |  |  |  |  |  |  |
| Hand Finishing |                                         |      |  |  |  |  |  |  |  |

*Handwritten:* 4 0 15-8-27  
 DAS 40 9-89 15/5/25  
 Del

# Work Order ID 126670

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Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description             | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 130                            | QC7-Inspect Chemical Conversion Coat | 0.00                 |         |        |              |               |               |                  |                |
| *130*                          |                                      |                      |         |        |              | 4             | 0             | 15-05-27         |                |
| QC                             | Memo                                 | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                      |                      |         |        |              |               |               |                  |                |

140 0.00  
 \*140\* Small Fab  
 Small Fab Memo 0.00  
 Small Fab 1- Transfer drill Rivet holes as per dwg D3562.  
 2-Touch-up rivet holes with alodine as per dwg d3562  
 3-Rivet legs using Scotch-Weld as per dwg D3562.  
 \*\*\*\*\*Ensure to wipe off any excess magnobond \*\*\*\*\*  
 A/R Scotch-Weld DP460  
 Batch: M131539  
 EXP DATE: 15-2-16

15-6-3  
 15-6-5

DAS  
18  
9-89



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Item ID: D3562-041 Accept \*N900040100\* Setup Start \*NS1\*  
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 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description                                           | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|--------------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 180                            | QC5- Inspect part completeness to step on W/O                      | 0.00                 |         |        |              |               |               |                  | DAS            |
| *180*                          |                                                                    |                      |         |        |              |               |               |                  | 9              |
| QC                             | Memo                                                               | 0.00                 |         |        |              |               |               |                  | 9-89           |
| Quality Control                |                                                                    |                      |         |        |              |               |               |                  |                |
| 190                            | Chemical Conversion Coat per QSI005 4.1                            | 0.00                 |         |        |              |               |               |                  |                |
| *190*                          |                                                                    |                      |         |        |              |               |               |                  |                |
| HandFinish                     | Memo                                                               | 0.00                 |         |        |              |               |               |                  |                |
| Hand Finishing                 |                                                                    |                      |         |        |              |               |               |                  |                |
| 200                            | White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum                       | 0.00                 |         |        |              |               |               |                  |                |
| *200*                          | M 134545.                                                          |                      |         |        |              |               |               |                  |                |
| Powdercoat                     | Memo                                                               | 0.00                 |         |        |              |               |               |                  |                |
| Powder Coating                 | START TIME: 11:20<br>OVEN TEMPERATURE: 350°<br>FINISH TIME: 10:50. |                      |         |        |              |               |               |                  |                |

② 13-06-09  
 4 φ 15-6-7 Del  
 4 φ 15-6-10. 333

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Item ID: D3562-041 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: Step Weldment  
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 Required Date: 12/05/14 Req'd Qty: 4.00 \*4\* Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start \*NR1\*  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop \*NR2\*

| Sequence ID/<br>Work Center ID | Operation<br>Description              | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 210                            | Wing Walk as per dwg OSI005 4.4 Batch | 0.00                 |         |        |              |               |               |                  |                |
| *210*                          |                                       |                      |         |        |              |               |               |                  |                |
| HandFinish                     | Memo                                  | 0.00                 |         |        |              |               |               |                  |                |
| Hand Finishing                 |                                       |                      |         |        |              |               |               |                  |                |
| 220                            | QC3- Inspect Part Finish              | 0.00                 |         |        |              |               |               |                  |                |
| *220*                          |                                       |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                  | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                       |                      |         |        |              |               |               |                  |                |
| 230                            | Identify as per dwg & Stock Location  | 0.00                 |         |        |              |               |               |                  |                |
| *230*                          |                                       |                      |         |        |              |               |               |                  |                |
| Packaging                      | Memo                                  | 0.00                 |         |        |              |               |               |                  |                |
| Packaging                      |                                       |                      |         |        |              |               |               |                  |                |

4X 6 JH 13/06/10

4X 15/06/11 DAS 36 9-89

4X 15/06/11 DAS 36 9-89

G-A  
W/O  
132949

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Item ID: D3562-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
Item Name: Step Weldment  
Start Date: 11/20/14 Start Qty: 4.00 **\*4\*** Cust Item ID:  
Required Date: 12/05/14 Req'd Qty: 4.00 **\*4\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                    | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp |
|--------------------------------|---------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
| 240                            | QC21- Final Inspection - Work Order Release | 0.00                 |         |        |              |               |               |                  |                |
| <b>*240*</b>                   |                                             |                      |         |        |              |               |               |                  |                |
| QC                             | Memo                                        | 0.00                 |         |        |              |               |               |                  |                |
| Quality Control                |                                             |                      |         |        |              |               |               |                  |                |

MLJ JUN 16 2015

MLJ JUN 16 2015

# Picklist Print

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Work Order ID: 126670

\*126670\*

Parent Item: D3562-041

\*D3562-041\*

Parent Item Name: Step Weldment

Start Date: 11/20/14

Required Date: 12/05/14

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:A New Issue 06-11-09 JLM  
 IPP rev B ECN 987 07.10.09 EC verified by: DD  
 IPP Rev:C ECN1048 07-12-18 DD verified by:ec  
 IPP Rev:D 08-07-28 add chemical conversion coat DD verf:EC IPP REV:E  
 13.06.03 PER DWG REV.F DD VERF:JLM

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|

D2622-120C

Manufactured No

100

Each

34.0000

1

4

\*D2622-120C\*

Step Extrusion

\*\*

DD 15-5-25  
 (4)

Location

Loc Qty

Loc Code

HALL

130161

32

109575

32

WA003

2

101765

1

115141

1

D2734

Manufactured No

140

Each

82.0000

2

8

\*D2734\*

Step End Plate

\*\*

BE15-06-08  
 8130457 x 8

Location

Loc Qty

Loc Code

WA003

82

119498

7

124317

53

125805

21

99709

1

D3560-041

Manufactured No

140

Each

1.0000

1

4

\*D3560-041\*

Arm Weldment

\*\*

DD 15-6-3

Location

Loc Qty

Loc Code

WA003

1

108798

1

127847 -2  
 124288 -2

# Picklist Print

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Work Order ID: 126670

**\*126670\***

Parent Item: D3562-041

**\*D3562-041\***

Parent Item Name: Step Weldment

Start Date: 11/20/14

Required Date: 12/05/14

Start Qty: 4.00

Required Qty: 4.00

D3560-043

Manufactured No

140

Each

0.0000

1

4

**\*D3560-043\***

Arm Weldment

MS20600-AD4W5

Purchased No

160

Each

507.0000

32

128

**\*MS20600-AD4W5\***

Blind Rivet

\*\*

\*\*

Location

Loc Qty

Loc Code

ST308

427

m129472

308

m129820

69

m130673

50

WA003

80

m129820

80

13/340

130

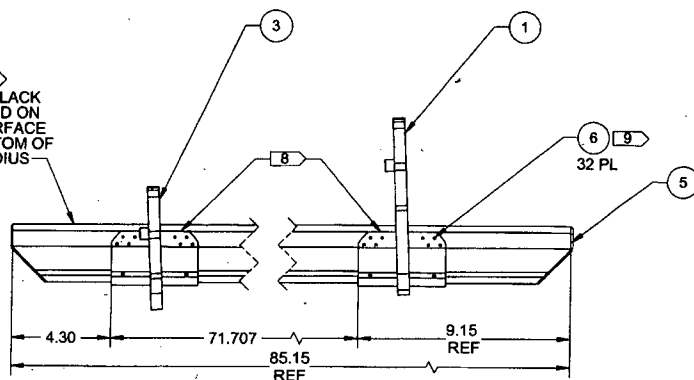
15-6-3

15-6-8



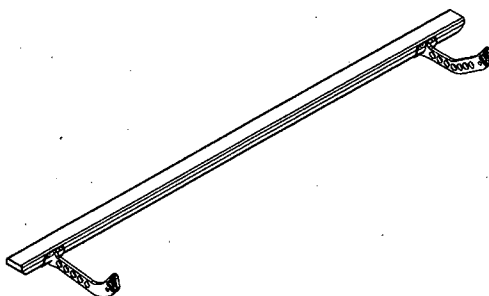
76.007

2  
APPLY BLACK  
ANTI-SKID ON  
TOP SURFACE  
TO BOTTOM OF  
TOP RADIUS



MEASURED BEFORE END CAPS WELDED IN PLACE

FWD



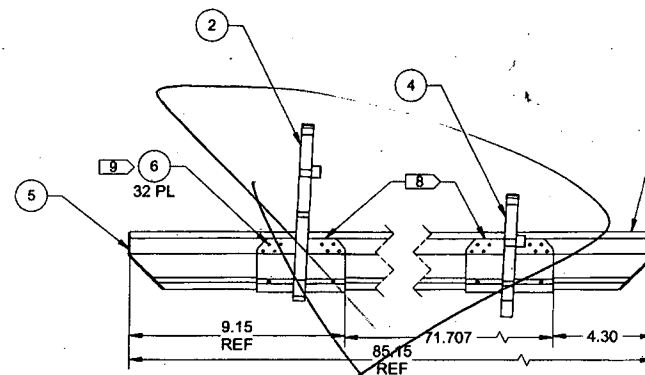
**D3562-041 LH STEP ASSEMBLY**

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH:
  - i) POWDER COAT ASSEMBLY GLOSS WHITE (4.3.5.1) OR GREY SANDTEX (4.3.5.6) OR BLACK SANDTEX (4.3.5.7) OR GREEN SANDTEX (4.3.5.8) PER DART QSI 005 4.4
  - ii) BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 8.79 lbs
- 8) INSTALL ARM WELDMENTS WITH A LAYER OF SCOTCH-WELD DP460 BETWEEN THE ARM WELDMENT AND STEP EXTRUSION. FILL ANY TOOLING HOLES WITH SCOTCH-WELD DP460. CLEAN OFF EXCESS BEFORE POWDER COATING.
- 9) TRANSFER DRILL #30 DEBURR & TOUCH UP HOLES WITH CHEMICAL CONVERSION COAT BEFORE RIVETING

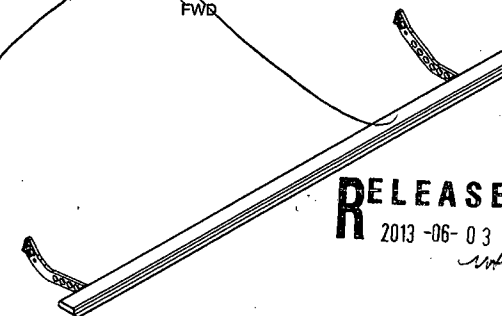
| ITEM No. | QTY -041 | QTY -042 | P/N          | DESCRIPTION      |
|----------|----------|----------|--------------|------------------|
|          | X        |          | D3562-041    | LH STEP ASSEMBLY |
|          |          | X        | D3562-042    | RH STEP ASSEMBLY |
| 1        | 1        |          | D3560-041    | ARM WELDMENT     |
| 2        |          | 1        | D3560-042    | ARM WELDMENT     |
| 3        | 1        |          | D3560-043    | ARM WELDMENT     |
| 4        |          | 1        | D3560-044    | ARM WELDMENT     |
| 5        | 1        | 1        | D3562-1      | STEP ASSEMBLY    |
| 6        | 32       | 32       | MS20600AD4W5 | RIVET            |

2  
APPLY BLACK  
ANTI-SKID ON  
TOP SURFACE  
TO BOTTOM OF  
TOP RADIUS



MEASURED BEFORE END CAPS WELDED IN PLACE

FWD



**D3562-042 RH STEP ASSEMBLY**

|            |                                                                                                              |    |          |
|------------|--------------------------------------------------------------------------------------------------------------|----|----------|
| F          | REVISED NOTE 8 TO REMOVE MAGNOBOND, REPLACE WITH SCOTCH-WELD DP460, REF. PAR12-224. ADDED NOTE 9 AND SHEET 2 | DW | 13.05.15 |
| E          | ADD QTY(2) TO D2734 END PLATE ON D3562-042                                                                   | PH | 08.01.11 |
| D          | REMOVE D2808 SPACER NOTE: REDRAW IN SOLIDWORKS                                                               | DC | 07.11.16 |
| C          | NOW MAGNOBOND, ADD D2808, REMOVE 4 RIVETS                                                                    | CP | 07.06.19 |
| B          | ARMS NOW RIVETED TO STEP                                                                                     | CP | 07.01.15 |
| A          | NEW ISSUE                                                                                                    | CP | 06.09.26 |
| REV.       | DESCRIPTION                                                                                                  | BY | DATE     |
| DESIGN     |                                                                                                              |    |          |
| DRAWN      |                                                                                                              |    |          |
| CHECKED    |                                                                                                              |    |          |
| MFG. APPR. |                                                                                                              |    |          |
| APPROVED   |                                                                                                              |    |          |
| DE APPR.   |                                                                                                              |    |          |
| DATE       | 13.05.15                                                                                                     |    |          |

**DART AEROSPACE LTD**  
HAWKESBURY, ONTARIO, CANADA

DRAWING NO. **D3562** REV. F  
SHEET 1 OF 2  
TITLE **STEP ASSEMBLY** SCALE NTS

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**RELEASED**  
2013-06-03

W/126670

8 7 6 5 4 3 2 1

D

D

C

C

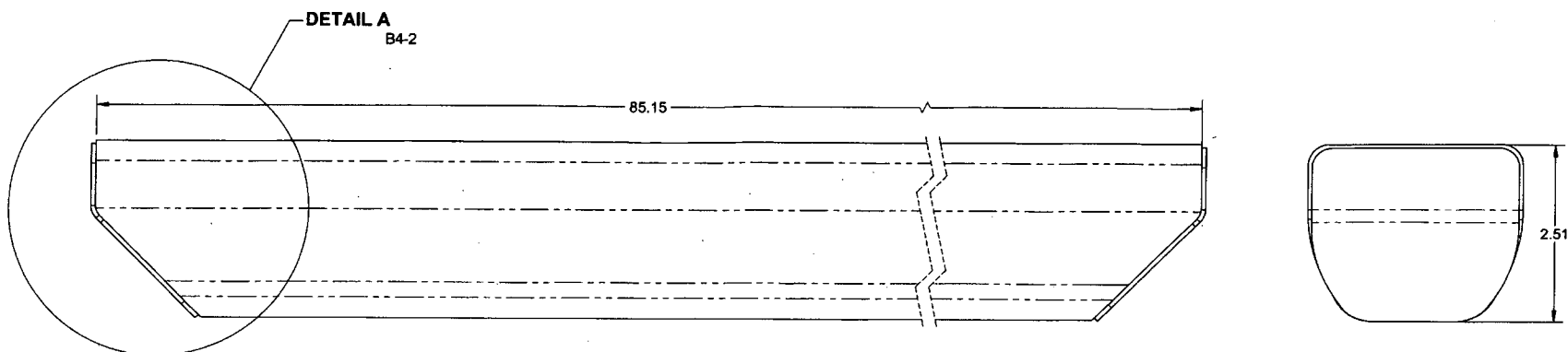
B

B

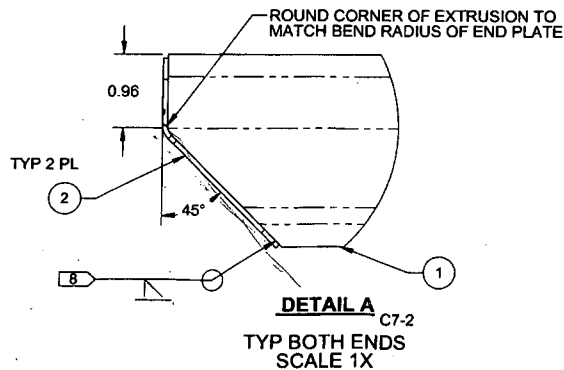
A

A

8 7 6 5 4 3 2 1



**D3562-1 STEP ASSEMBLY**



**RELEASED**  
2013-06-03  
Wf

**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: CHEMICAL CONVERSION COAT STEP EXTRUSION PER DART QSI 005 4.1 BEFORE ASSEMBLY
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 6.68 lbs
- 8) WELDING: ALL WELDS SHALL BE 100% VISUALLY INSPECTED BY A QUALIFIED INSPECTOR PER DART QSI 004

| ITEM No. | QTY | P/N       | DESCRIPTION    |
|----------|-----|-----------|----------------|
|          | X   | D3562-1   | STEP ASSEMBLY  |
| 1        | A/R | D2622-XXX | STEP EXTRUSION |
| 2        | 2   | D2734     | END PLATE      |

|            |          |                                                                                                                                                                                                                                                                                          |        |
|------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| DESIGN     | CP       | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                                |        |
| DRAWN      | DW       | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                              |        |
| CHECKED    | CP       | DRAWING NO. <b>D3562</b>                                                                                                                                                                                                                                                                 | REV. F |
| MFG. APPR. | M        | SHEET 2 OF 2                                                                                                                                                                                                                                                                             |        |
| APPROVED   | Wf       | TITLE <b>STEP ASSEMBLY</b>                                                                                                                                                                                                                                                               | SCALE  |
| DE APPR.   | Wf       | NTS                                                                                                                                                                                                                                                                                      |        |
| DATE       | 13.05.15 | <small>COPYRIGHT © 2006 BY DART AEROSPACE LTD<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> |        |